

Classification:

Reference:

Date:

EM01-004

ITB01-070

November 14, 2001

## 2002 Q45; OIL LEVEL GAUGE DIFFICULT TO READ / SMOKE FROM TAILPIPE AT COLD START

**APPLIED VEHICLE:** 2002 Q45 (F50)

**APPLIED DATE:** Vehicles built before October 9, 2001

### SERVICE INFORMATION

If a 2002 Q45's "cable" type oil dipstick is difficult to read, or blue smoke is emitted from the tailpipe at cold start, use the procedures set out in the bulletin to address these issues if they occur.

#### Oil Level Gauge

Installation of the new oil level gauge as described below, together with providing the customer with information about how to accurately read the gauge, may be helpful to the customer. The new blade type gauge is easier to read accurately than the former cable type gauge. Moreover, it is very important to follow the correct procedure when checking the oil on this vehicle, as described in steps 1 through 5 of the Service Procedure on page 2.

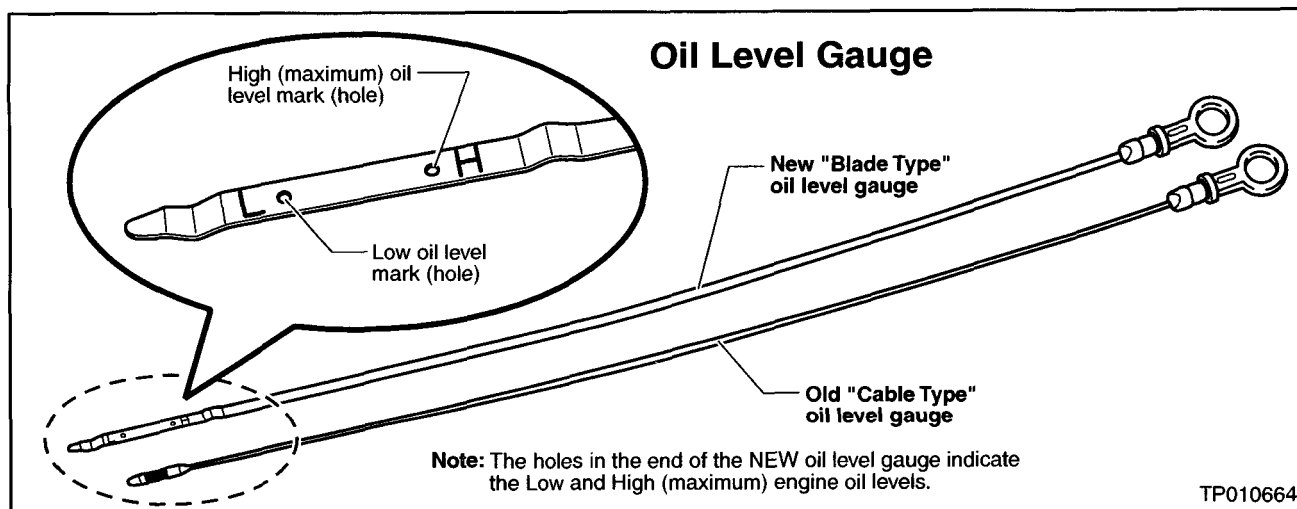


Figure 1

#### Smoke from Tailpipe

If the vehicle emits WHITE smoke from the tailpipe at cold start (first time the vehicle is started for the day), inform the customer that WHITE smoke (water vapor) is a normal occurrence resulting from normal combustion byproducts (including water) in the exhaust system. If BLUE smoke is observed, it may be caused by small amounts of oil from the crankcase ventilation system that condense in the intake collector after engine shutdown. This very small amount of oil will be burned off quickly, and is not harmful to the engine, nor will it noticeably affect oil usage. However, the procedures detailed below will greatly reduce or eliminate the situation should the customer be concerned.

Follow the Service Procedure on page 2 to resolve either of these situations, should one or the other occur.

## SERVICE PROCEDURE

1. Place the vehicle on a flat, level surface (very important).
2. Install the NEW engine oil level gauge (if not already installed). The Part Number suffix AR020 is stamped into the blade near the top.
3. Start the engine and warm it up to operating temperature.
4. Turn off the engine and wait 15 minutes before checking the engine oil level.

**IMPORTANT:** The reason for waiting 15 minutes before checking the engine oil level is because:

- The 2002 Q45 engine has an advanced cylinder head design that retains oil in the valve train area to provide proper lubrication while the engine is running
  - Time is needed, after the engine is shut down, for the oil to return to the oil pan before reading the oil level gauge
5. After 15 minutes, check and adjust (as necessary) the engine oil level to the “H” mark (i.e., the **hole** in the gauge next to the “H” mark). See Figure 1 on page 1.

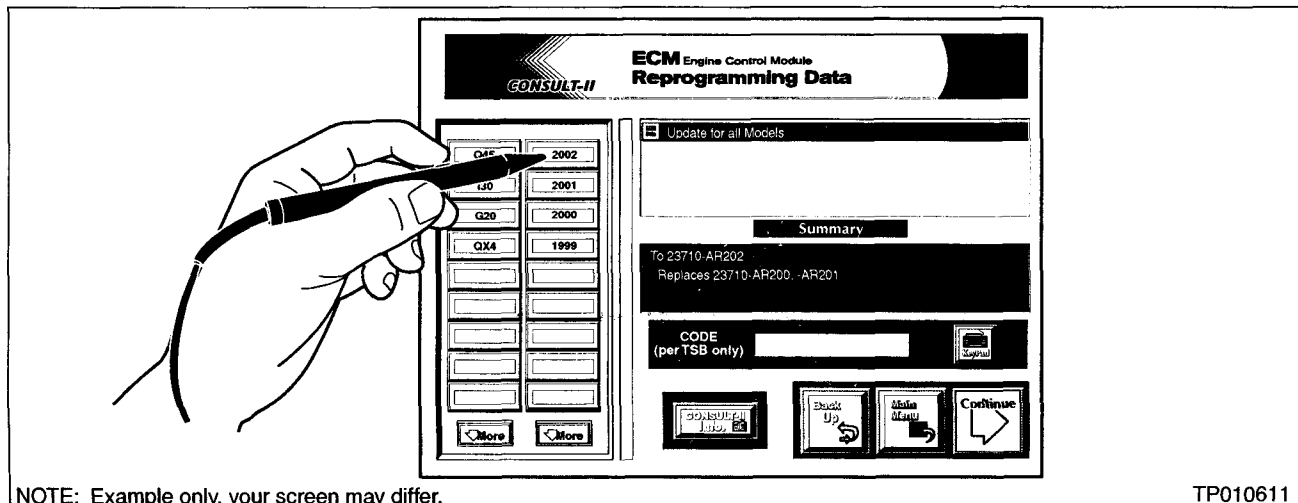
**NOTE:** When you return the vehicle to the customer, remind them to:

- Wait 15 minutes (after engine shutdown) before checking the oil level
  - Check the oil level on a flat, level surface
6. Compare the vehicle's ECM part number to those shown under “**Current ECM P/N**” and “**New ECM Data P/N**” in **Table A** below.

**Table A – Current ECM Part Number / New ECM Data Part Number**

VEHICLE	CURRENT ECM P/N	NEW ECM DATA P/N
2002 Q45 (F50)	23710-AR201	23710-AR202

- A. If the ECM part number in the vehicle matches the “Current ECM P/N” in the table, note the new ECM Data P/N required and proceed to step 7 to perform ECM reprogramming.
  - B. If the ECM P/N in the vehicle matches the “New ECM Data P/N” in the table, do NOT perform ECM reprogramming. Return the vehicle to the customer.
7. Perform ECM reprogramming to update the ECM data to the NEW part number. ASIST users click here to link to the “ECM Reprogramming For Infiniti Vehicles” general procedure **OR** refer to “Attachment A” in the printed copy of this bulletin.



**Figure 2**

**PARTS INFORMATION**

DESCRIPTION	PART NUMBER	QUANTITY
Oil Level Gauge	11140-AR020	1

**CLAIMS INFORMATION**

Submit a Primary Failed Part (PP) line claim using the following clams coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL Dipstick	11140-AR020	AX02AA	ZE	99	0.2

And, IF REQUIRED, Submit a 2<sup>nd</sup> Primary Failed Part (PP) line claim using the following clams coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram ECM	(1)	DE97AA	AP	32	(2)

(1) Reference the final CONSULT-II "ECM Reprogramming" print out and use the final ECM P/N as the PFP.

(2) Please reference the current Infiniti "Warranty Flat Rate Manual" and use the indicated FRT.

# ATTACHMENT A - ECM REPROGRAMMING FOR INFINITI VEHICLES

ECM Reprogramming involves two general steps:

- Download the ECM Reprogramming data from ASIST to CONSULT-II.
- Use CONSULT-II to install the ECM Reprogramming data into the vehicle ECM.

## Download ECM Reprogramming data from ASIST to CONSULT-II

1. Install the ECU Reprogramming Software Card (orange) into slot A of CONSULT-II (see Figure 1).

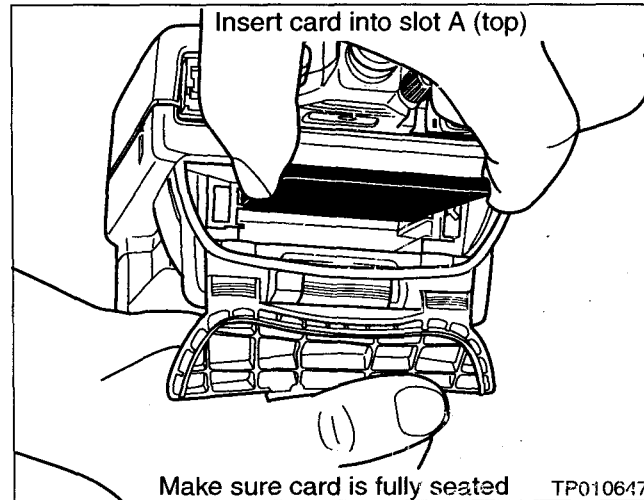


Figure 1

- 2a. Connect the AC power supply to CONSULT-II.
- 2b. Connect CONSULT-II to the ASIST PC with the special Ethernet cable (P/N 02002554, printed on the cable) contained in the CONSULT-II kit.

**NOTE:** DO NOT USE the network cable attached to the Infinitinet network.

### NOTES:

- Connect the special Ethernet cable to CONSULT-II at the "PC port" located at the bottom end of the CONSULT-II unit.
  - Connect the special Ethernet cable to the ASIST PC by connecting it to the "Ethernet card" connection port located on the back of the computer.
3. Confirm the CONSULT-II date and time is correctly set as follows:
    - A. With the ECU Reprogramming Software card in slot 1, turn on CONSULT-II.
    - B. Touch **"SUB MODE"**.

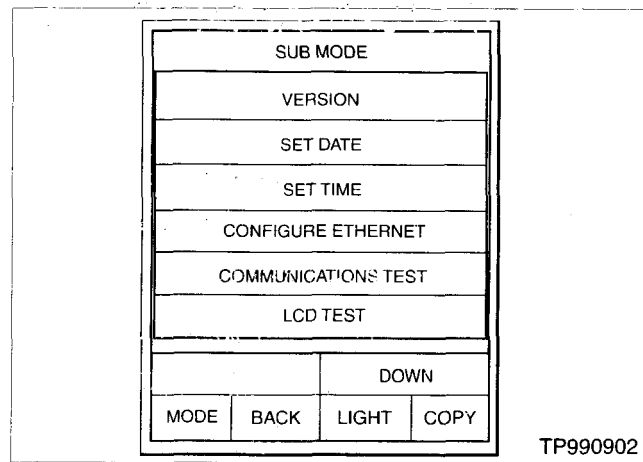


Figure 2

C. Touch **"SET DATE"**.

- If date is not correct, touch the month, day or year as needed. Then adjust it by using arrow keys. Once done, press **"SAVE"**, press **"BACK"** and go to step D.
- If date is OK, press **"BACK"** and go to step D.

D. Touch **"SET TIME"**.

- If time is not correct, touch the hour, minute or AM/PM as needed. Then adjust it by using arrow keys. Once done, press **"SAVE"**, press **"BACK"** and go to step 4.
- If time is OK, press **"BACK"** and go to step 4.

4. Set the Ethernet (IP) Address between the ASIST PC and CONSULT-II as follows:

**NOTE:** If your ASIST terminal has been used to perform ECM Reprogramming before, you may skip steps "A" through "J" below and proceed to step 5 on page 4.

**If you are unsure whether your ASIST terminal has been already set up for ECM Reprogramming, proceed to step "A" below.**

A. On the ASIST PC, click **"START"**, **"PROGRAMS"** and **"MS-DOS"**.

B. When the MS-DOS Prompt window appears, after C:\WINDOWS> type: **winipcfg** (see Figure 3).

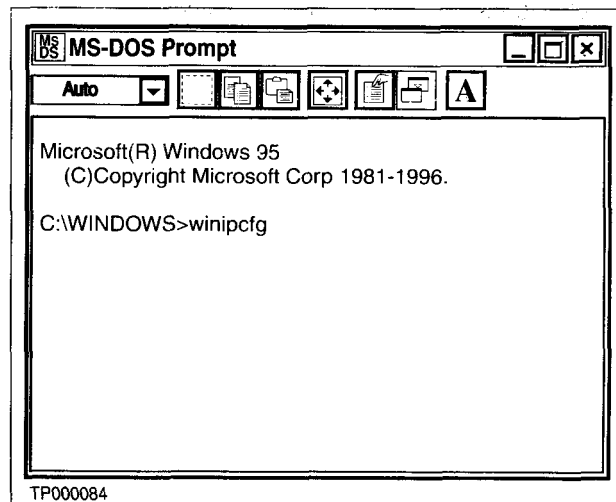


Figure 3

- C. Click **"ENTER"**. The "IP Configuration" window will display the IP Address and Subnet Mask (see Figure 4).

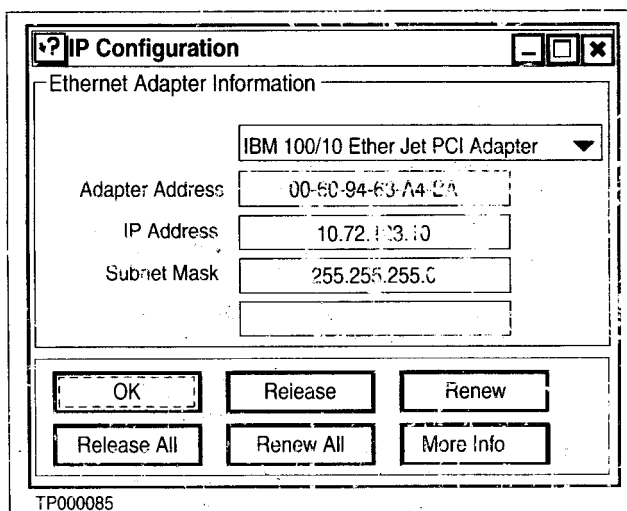


Figure 4

- D. On CONSULT-II touch **"SUB MODE"**, then touch **"CONFIGURE ETHERNET"**.
- E. Compare the IP Address on the ASIST PC with the Address on the Configure Ethernet screen of CONSULT-II.
- If the first three sets of numbers of the CONSULT-II Address match the IP Address on the ASIST PC (as noted in step 4C above) proceed with step 4I below.
  - If the first three sets of numbers of the CONSULT-II Address do not match the IP Address on the ASIST PC, proceed with step 4F below.
- F. Touch the Address number on the CONSULT-II screen (titled "Configure Ethernet"). A numeric keypad will appear (see Figure 5).

**NOTE:** The IP Address for the ASIST PC you are working on will be different from the Address shown in Figure 5.

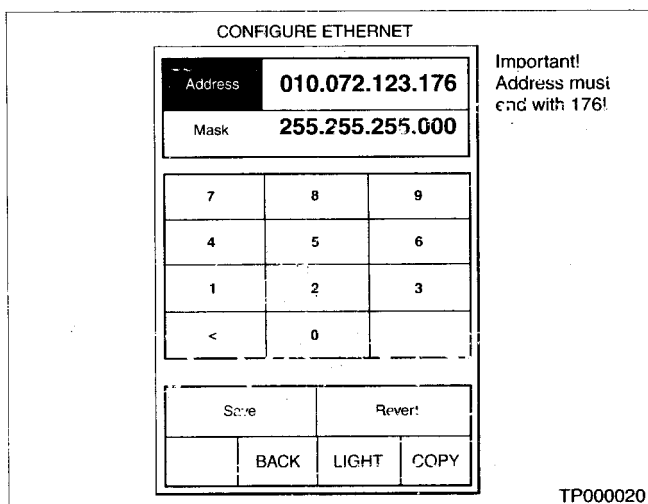


Figure 5

- G. Use the key pad to set the CONSULT-II Address to match the ASIST PC IP Address with the exception that the CONSULT-II Address number ends with 176.

- H. Touch **"SAVE"** and then press **"COPY"** to print the Address for future reference.
- I. Turn off CONSULT-II to allow the new Address to be saved in memory.
- J. On the ASIST PC close the "IP Configuration" window, close the "MS-DOS Prompt" window, then proceed with step 5.

5. Launch ASIST. From the ASIST PC main menu screen, select **"CONSULT UTILITIES"** (see Figure 6).

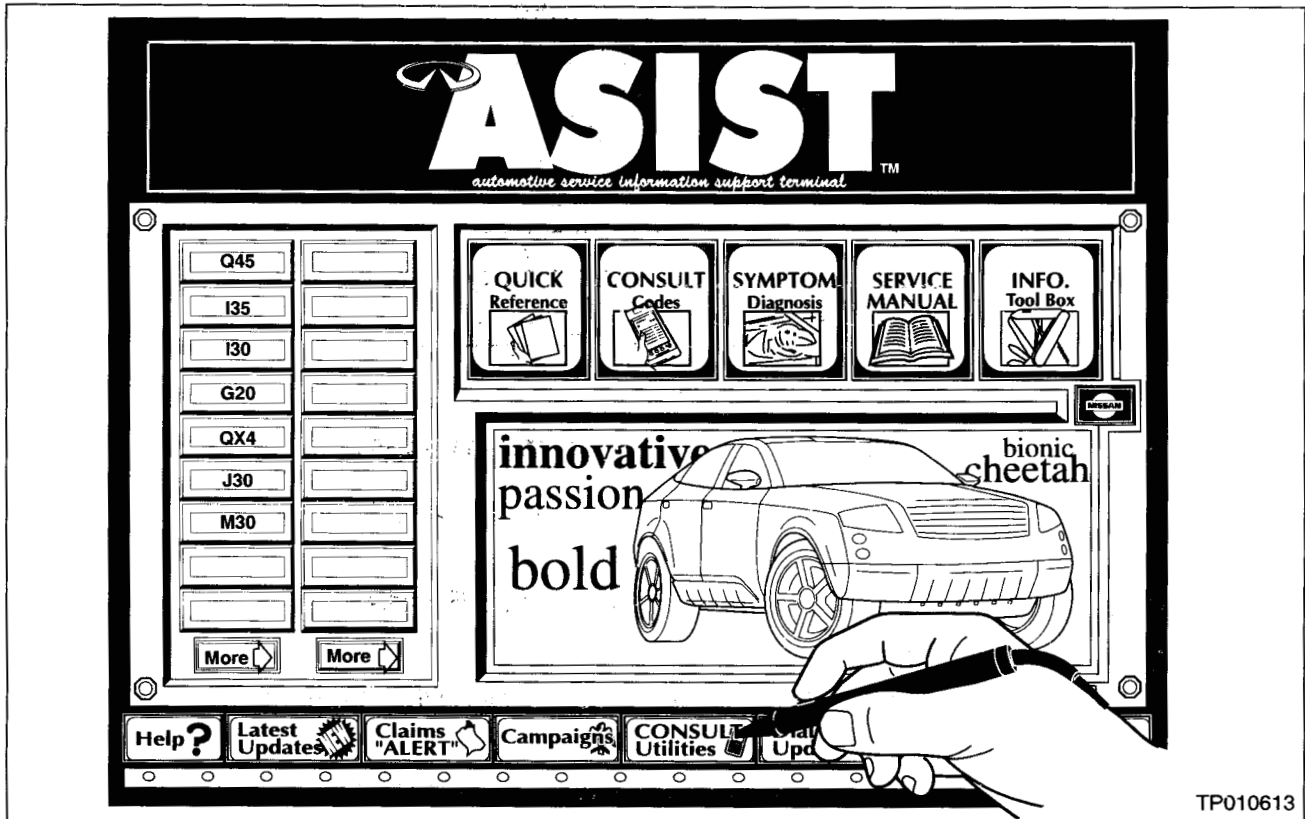


Figure 6

6. From the **"CONSULT UTILITIES"** screen, select **"ECM DATA"** (see Figure 7).

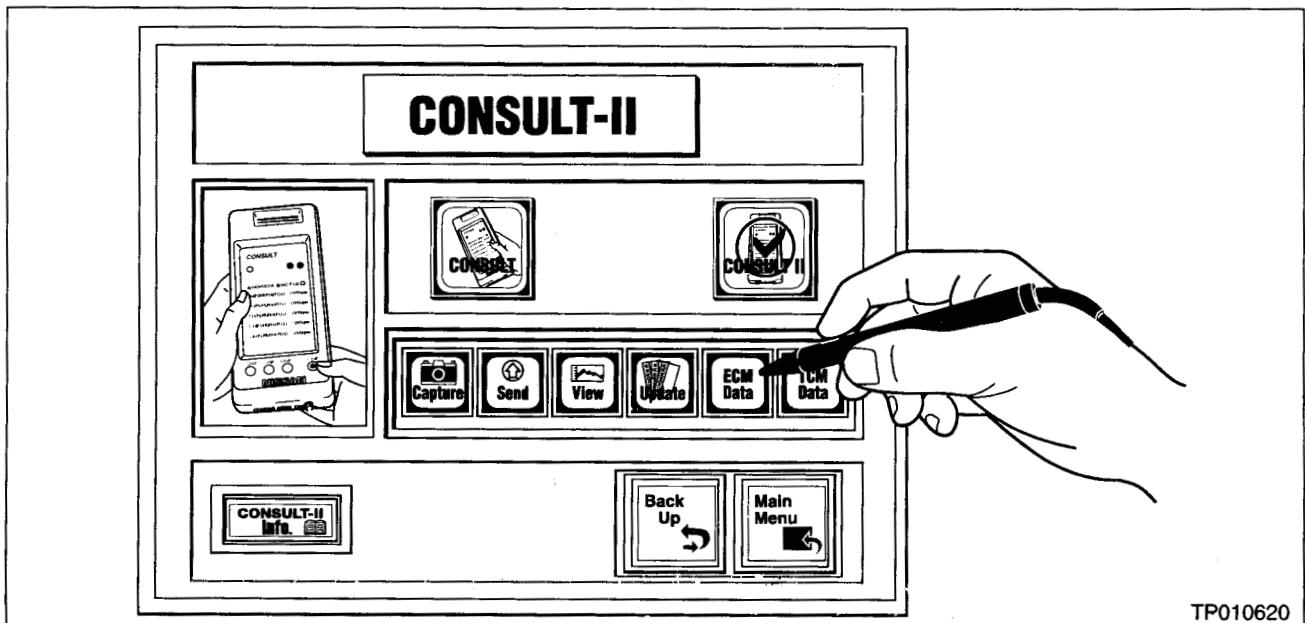


Figure 7

7. The "ECM DATA REPROGRAMMING" screen will be displayed (see Figure 8):

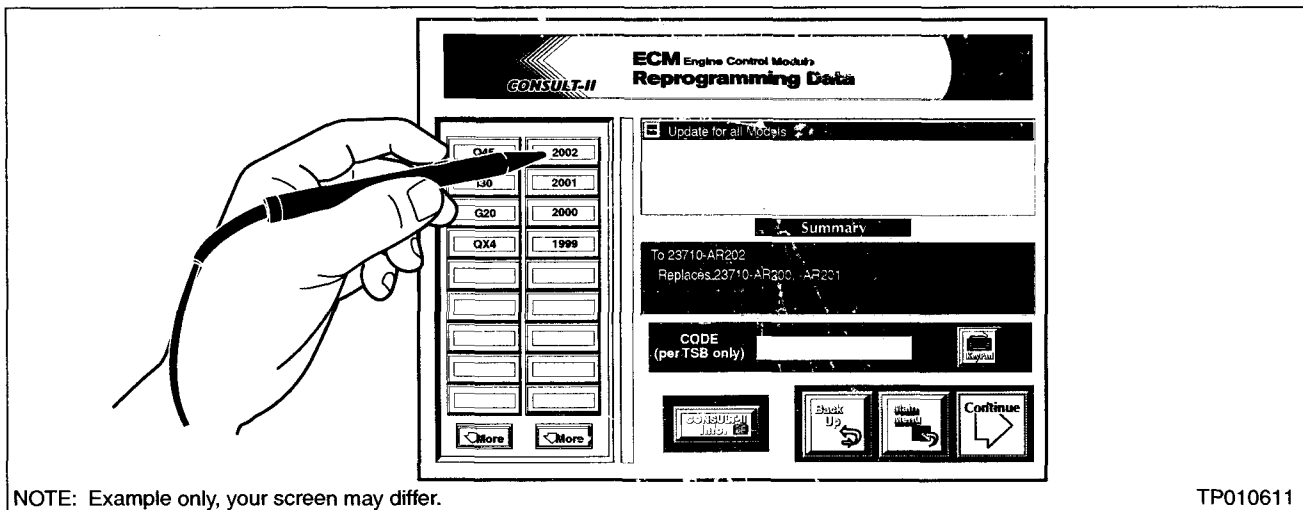


Figure 8

- A. Select model and model year for the applied vehicle.
  - B. Select the applicable vehicle configuration for your vehicle from that listed in the upper right ECM data description window.
  - If there is only one listing, go to step C.
  - If multiple selections are listed (M/T vs A/T, Fed vs Cal, etc.), select the applicable vehicle configuration then go to step C.
  - C. Click the "**CONTINUE**" button on the ECM Data Reprogramming screen to proceed to CONSULT-II setup.
8. Turn on CONSULT-II as follows to access the file transfer mode:

- A. While pressing on the CONSULT-II screen with your thumb, quickly depress and release the ON/OFF switch (see Figure 9).

**NOTE:** A double-beep will sound after the ON/OFF switch is quickly depressed and released.

Release your thumb from the screen after a double-beep sound is heard.

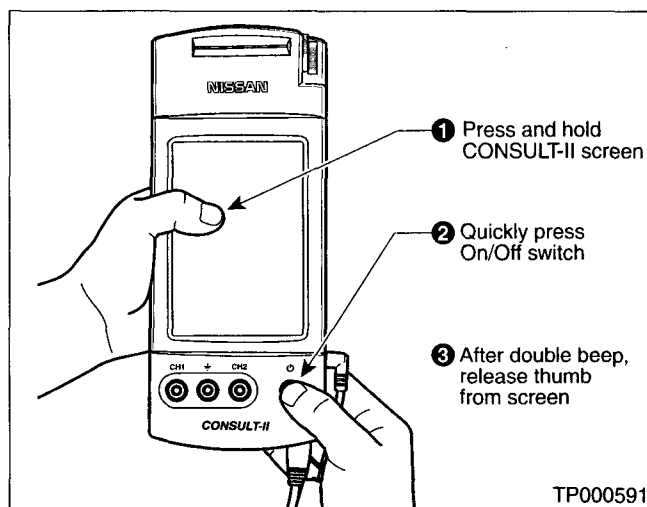


Figure 9



B. Select "**Transfer files via LAN**" (see Figure 10). Set the CONSULT-II unit down for now.

**NOTE:** If you accidentally choose a menu option other than "**Transfer Files via LAN**", turn CONSULT-II off and restart it according to step 8A above.

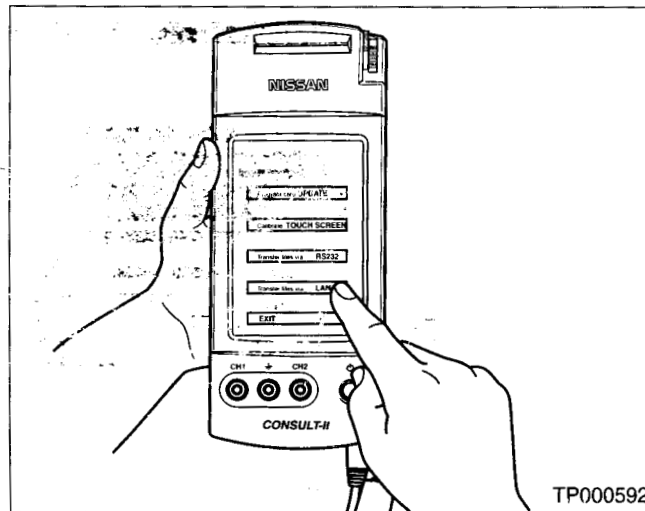


Figure 10

9. On ASIST, make sure the IP Address (for CONSULT-II) displayed in the "**CHANGE IP ADDRESS**" box is the same number you printed in step 4H on page 5 then select "**CONTINUE**".

**NOTE:** If the IP Address (for CONSULT-II) displayed in the "**CHANGE IP ADDRESS**" box is not correct, turn CONSULT-II off and return to step 4 on page 2 of this procedure.

10. Data transfer will take about 1 minute and the progress of the transfer is displayed on the ASIST PC screen (see Figure 11). Wait until the data transfer is complete (see **CAUTION**, below).

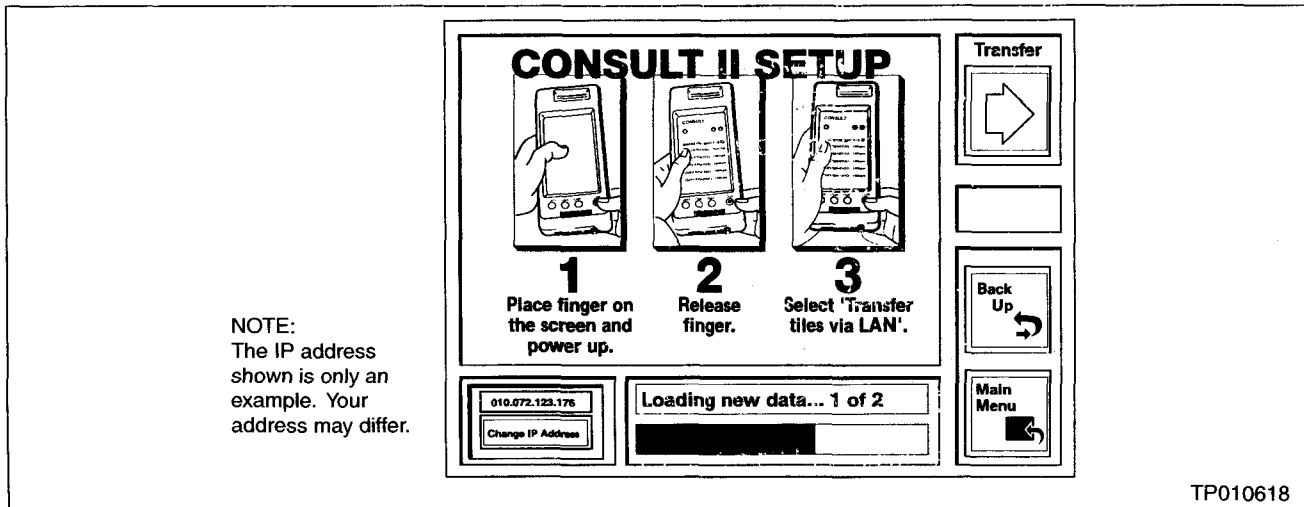


Figure 11

**CAUTION: DO NOT DISCONNECT THE ETHERNET CABLE UNTIL "COMPLETE" IS DISPLAYED AS SHOWN IN FIGURE 12.** If the cable is disconnected before "Complete" is displayed you **MUST** restart the download procedure. Otherwise ECM damage can occur.

If the cable is disconnected during the transfer; close ASIST, push "Control/Alt/Delete" and select End task. Then return to step 5 on page 4.

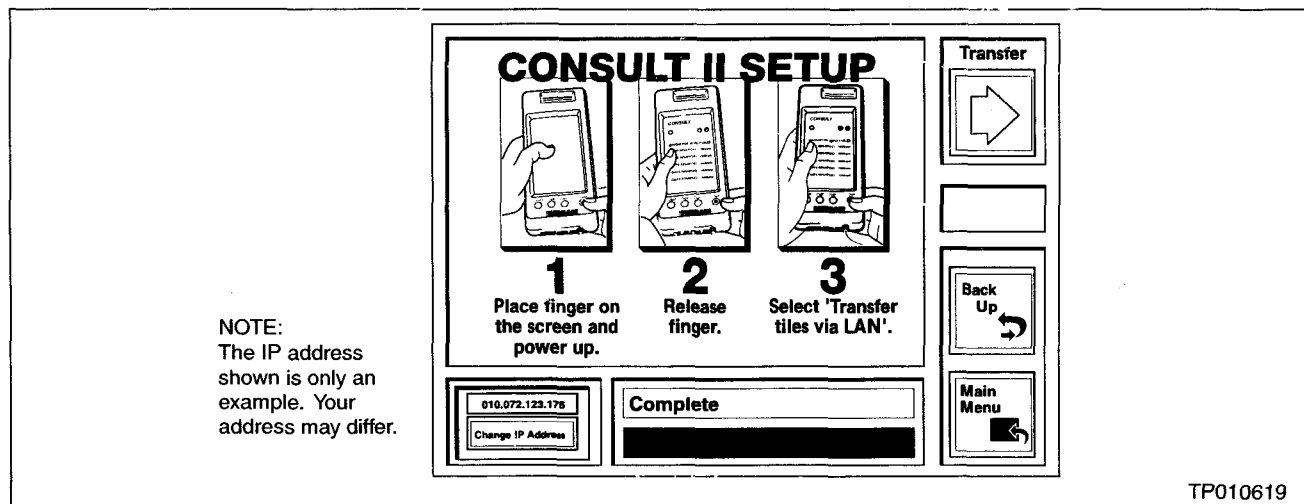


Figure 12

11. When transfer is complete select the **"MAIN MENU"** button on ASIST. Turn off CONSULT-II and disconnect the AC power cord and the Ethernet cable from CONSULT-II.

## Use CONSULT-II to Install ECM Reprogramming data into the vehicle ECM

**CAUTION:** Perform this operation in four steps. DO NOT SKIP any of these steps.

- Step 1: Check for DTC's in the ECM (Diagnostics card).
- Step 2: Confirm the vehicle and CONSULT-II battery voltage (Diagnostics card).
- Step 3: Perform ECM Reprogramming (Reprogramming card).
- Step 4: Perform ECM Reprogram Confirmation.

### Step 1: Check for DTC's in the ECM.

12. Confirm the vehicle's ignition switch is "OFF".
13. Use the DLC-II cable to connect CONSULT-II to the vehicle.

**NOTE:** On 1999 model vehicles use the DLC-I cable for DTC check.

14. Remove the ECU Reprogramming card from slot A of CONSULT-II and install the Diagnostics (red/white) card into slot A (see Figure 13).

**CAUTION:** Do not use slot B (bottom slot).

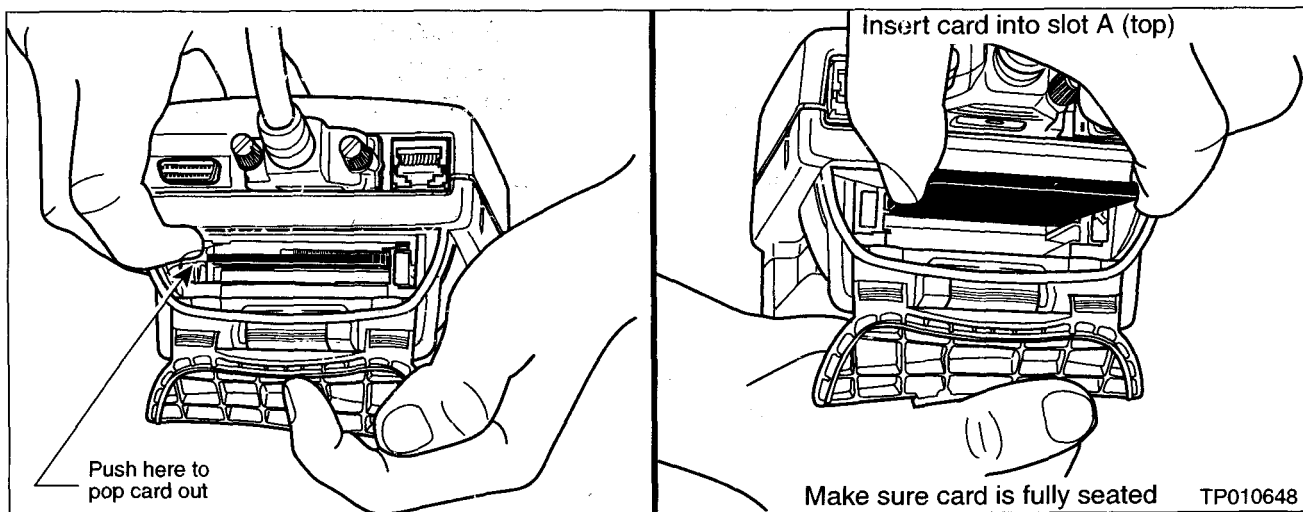


Figure 13

15. Turn "ON" the ignition switch (do not start the engine). CONSULT-II will turn on automatically (see Figure 14).

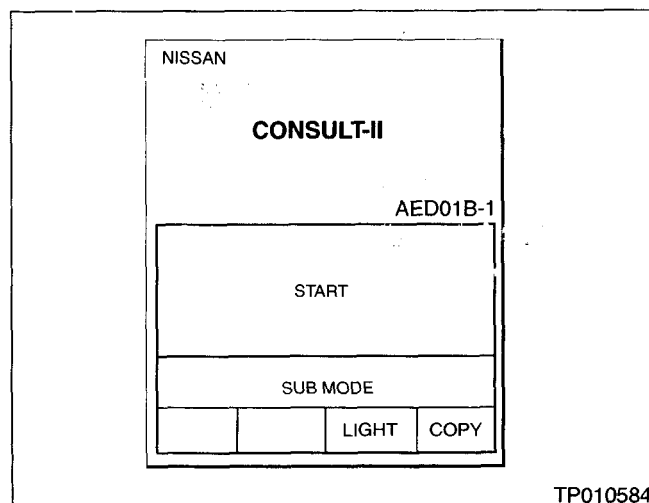


Figure 14

16. Press **"START"** and select **"ENGINE"**.

17. Press **"SELF-DIAG RESULTS"** and confirm that no DTC(s) exist.

- If no DTC(s) exist, proceed to step 18.
- If DTC(s) exist, print them, then erase the DTC(s) and proceed to step 18.

**NOTE:** Additional repairs may be necessary if the DTC's are not associated with a Reprogramming bulletin. Refer to the appropriate Service Manual.

18. Press **"BACK"** three times to return to the CONSULT-II main menu.

## Step 2: Confirm CONSULT-II Battery Voltage

19. Disconnect CONSULT-II from the vehicle and the AC/DC power cord.

20. Press **"SUB MODE"**, then select **"BATTERY CHARGE"**.

21. After about one minute has passed, check the CONSULT-II's battery voltage reading on the CONSULT-II screen (see Figure 15).

**NOTE:** CONSULT-II's battery voltage is called **"BATTERY VOLTAGE"**.

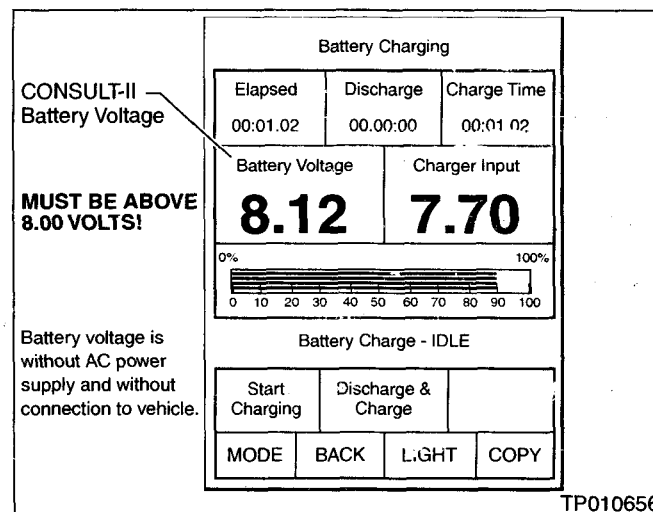


Figure 15

A. If CONSULT-II's battery voltage ("Battery Voltage") is less than 8 volts:

- Turn OFF CONSULT-II
  - Charge the CONSULT-II battery before proceeding with ECM Reprogramming
- OR**
- Connect the AC/DC power supply cord to CONSULT-II during the reprogramming procedure

B. If CONSULT-II's battery voltage ("Battery Voltage") is more than 8 volts, proceed with the following step.

**CAUTION:** Do not attempt ECU Reprogramming if the CONSULT-II battery voltage is below the specified voltage. Permanent ECU damage can occur if the battery does not maintain the minimum voltage during the ECU Reprogramming.

### Step 2a: Confirm Vehicle Battery Voltage

22. Connect CONSULT-II to the vehicle making sure the connector is fully plugged in.
23. Turn the ignition switch **ON** (DO NOT start the vehicle).
24. After about one minute has passed, check the vehicle's battery voltage reading on the CONSULT-II screen (see Figure 16).

**NOTE:** The vehicle's battery voltage is called "**CHARGER INPUT**".

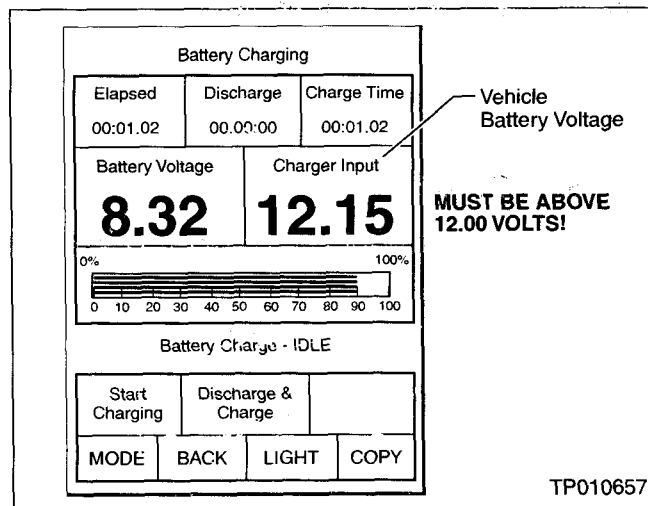


Figure 16

A. If the vehicle's battery charge ("Charger Input") is less than 12.0 volts:

- Press "**BACK**" (2x) to go back to the main menu
  - Charge the battery properly/replace it before proceeding with ECM Reprogramming
- OR**
- Trickle charge the battery during the reprogramming procedure

B. If the vehicle's battery charge ("Charger Input") is more than 12.0 volts, proceed with the following step.

**CAUTION:** Do not attempt ECU Reprogramming if the vehicle battery voltage is below the specified voltage. Permanent ECU damage can occur if the battery does not maintain the minimum voltage during the ECU Reprogramming.

### Step 3: ECM Reprogramming

25. Turn the vehicle's ignition switch "OFF" and CONSULT-II off.
26. Remove the Diagnostics (red/white) card from slot A of CONSULT II and install the ECU Reprogramming card (orange) into slot A (see Figure 17).

**CAUTION:** Do not use slot B (bottom slot).

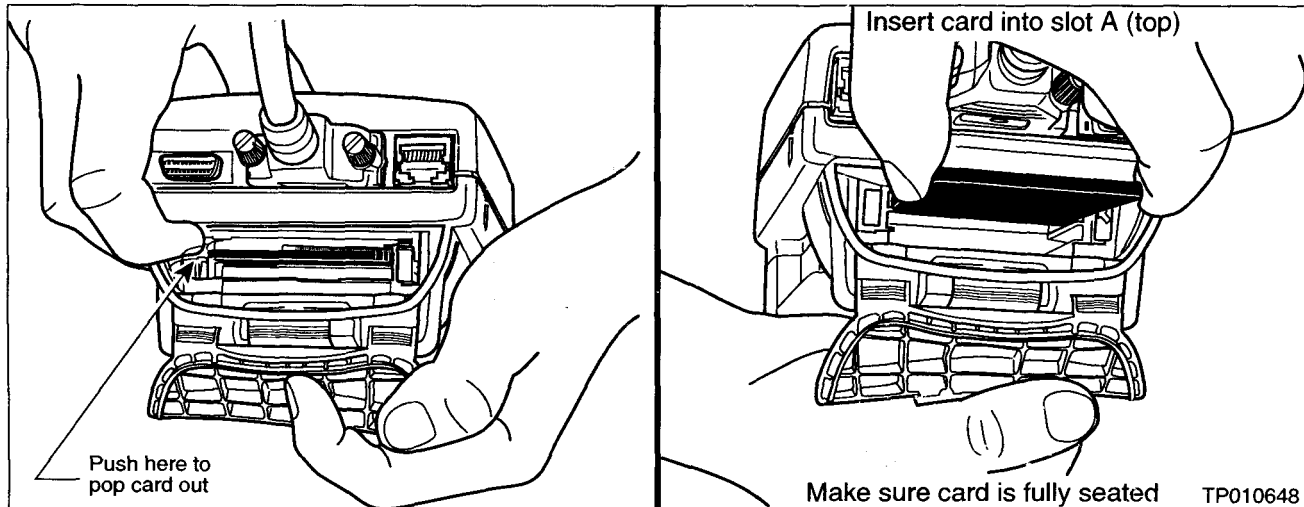


Figure 17

27. **Make sure the DLC-II cable is firmly plugged into the vehicle harness** (see **CAUTION** below). Turn "ON" the ignition switch (do not start the engine). CONSULT-II will turn on automatically (see Figure 18).

**NOTE:** ALL **Reprogramming** operations are done with the DLC-II cable **ONLY**.

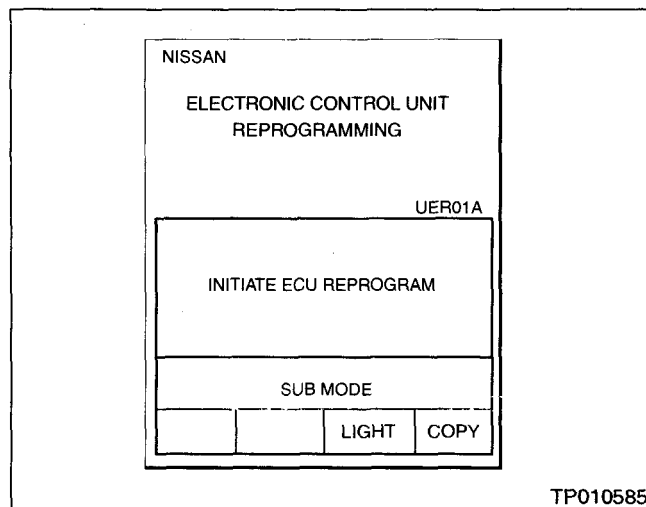


Figure 18

28. Confirm that all electrical loads (except for the ignition) such as headlights, defroster, A/C, Audio (radio), cellular telephone (if applicable) are "OFF".

**CAUTION:** Do not unplug CONSULT-II from the vehicle while Reprogramming ECM. Do not attempt ECM Reprogramming with any vehicle electrical loads "ON" except for the ignition. Permanent ECM damage can occur.

29. Roll down the driver's window part way, exit the vehicle, close the door and hang the CONSULT II unit on the outside of the window (see Figure 19).

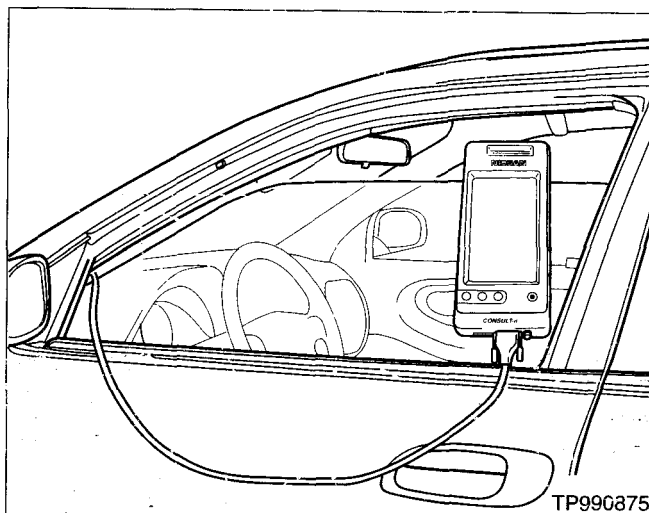


Figure 19

**CAUTION:** Do not open the vehicle doors, trunk, or hood during the reprogramming.

30. Press **"INITIATE ECM REPROGARM"** (see Figure 20), then do the following:

- Press **"ECM"**
- Review the precaution
- Press **"NEXT"**

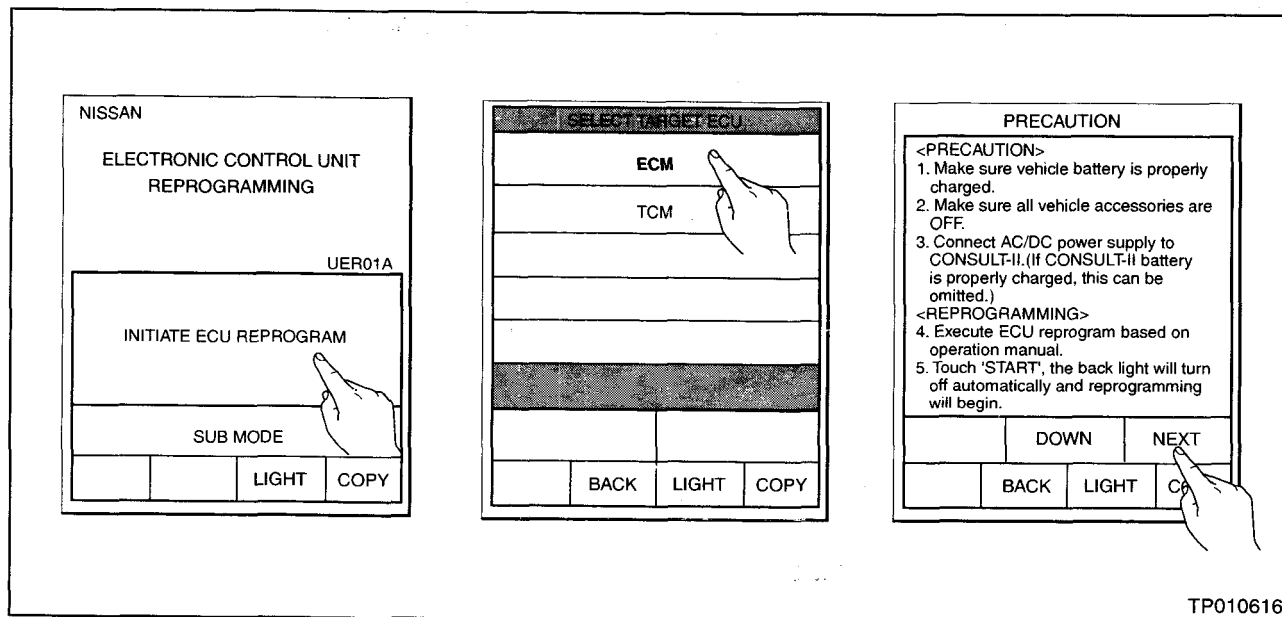


Figure 20

31. Press **"CHECK ECM P/N"** to confirm (i.e., take note of) the ECM part number on the vehicle to be reprogrammed (see Figure 21).

**NOTE:** This is the vehicle's ECM part number **BEFORE** Reprogramming.

ECM REPROGRAMMING			
DISPLAY ID			
PART NUMBER		23710-3Y116	
CALIBRATION ID		13Y116	
CVN		03FA5DCC	
MODE	BACK	LIGHT	COPY

NOTE:  
These numbers  
are only examples.  
Your numbers  
will differ.

TP990869

Figure 21

32. Press **"COPY"** to print the current ECM part number for future reference.

33. Press **"BACK"** to return to the main menu.

34. Select the correct ECM program to install from the choices on the CONSULT-II screen (see Figure 22).

SELECT ECM PROGRAM			
To 23710-2Y919 00MY A33 VQ30 FED/CAN AT NATS without TCS			
To 23710-3Y119 00MY A33 VQ30 CAL AT NATS without TCS			
To 23710-2Y964 00MY A33 VQ30 FED/CAN AT NATS TCS			
		DOWN	
	BACK	LIGHT	COPY

NOTE:  
These numbers  
are only examples.  
Your data will differ.

NOTE:  
"DOWN" will  
not appear on  
all models.

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Figure 22



35. The "REPROGRAM START" window should appear (see Figure 23).

**NOTE:** Refer to the ECU Reprogramming Software Operations Manual for instructions on error messages.

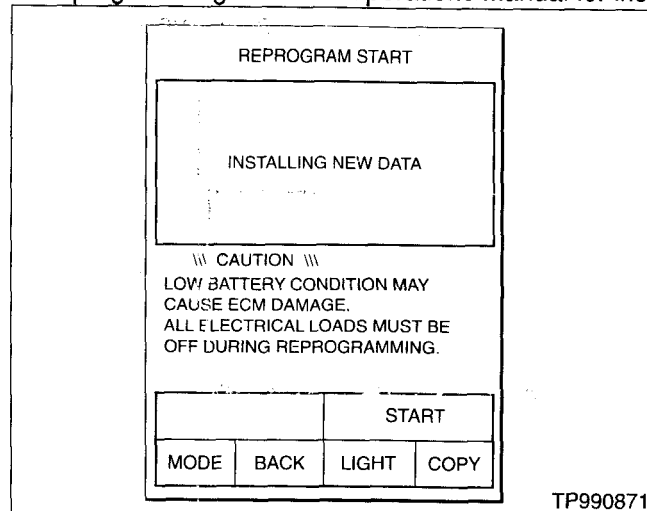


Figure 23

36. Press "START". After a moment the window shown in Figure 24 will appear. CONSULT-II will now turn off its screen backlight and reprogram the ECM.

**NOTE:** This process will take from 10 to 20 minutes.

**CAUTION:** Leave the vehicle and the CONSULT-II unit undisturbed until Reprogramming is complete.

When the Reprogramming is complete, CONSULT-II will "beep", turn the screen backlight back on and automatically print out a report.

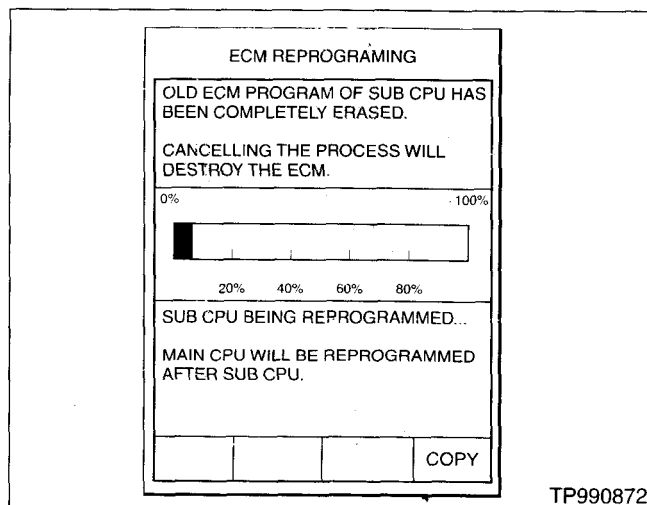


Figure 24

**CAUTION:** If CONSULT-II prints "REPROGRAMMING UNEXPECTEDLY TERMINATED", the ECM has been permanently damaged and will require replacement. Perform steps A through D below.

- Turn the ignition key "OFF", turn CONSULT-II "OFF" and DISCONNECT THE NEGATIVE TERMINAL OF THE VEHICLE BATTERY (Do not start the vehicle with the damaged ECM installed).
- Remove the damaged ECM from the vehicle.
- Attach the CONSULT-II printout to the repair order for future reference.
- Replace the damaged ECM and return to step 5 on page 4 of this bulletin, being careful to follow each step exactly as written.

37. Once ECM Reprogramming is done, CONSULT II will print out a report (see Figure 25). Attach this to the repair order for future reference.

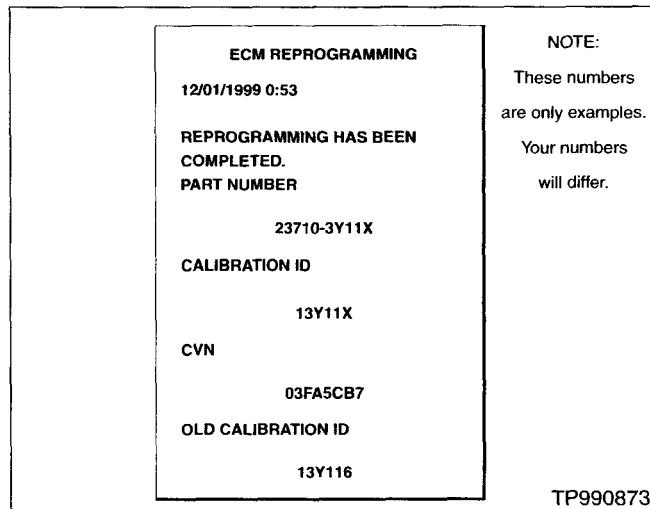


Figure 25

38. Press **"END"** to return to the main menu. Enter the vehicle and turn the ignition switch **"OFF"** and CONSULT-II off. Disconnect CONSULT-II from the vehicle.
39. Wait more than 10 seconds, then turn the ignition switch **"ON"** for 1 second. Then, turn the ignition switch **"OFF"** again for 10 seconds.
40. Repeat step 39 for a total of three times (see Figure 26). This will reset ECM "self learned" values.

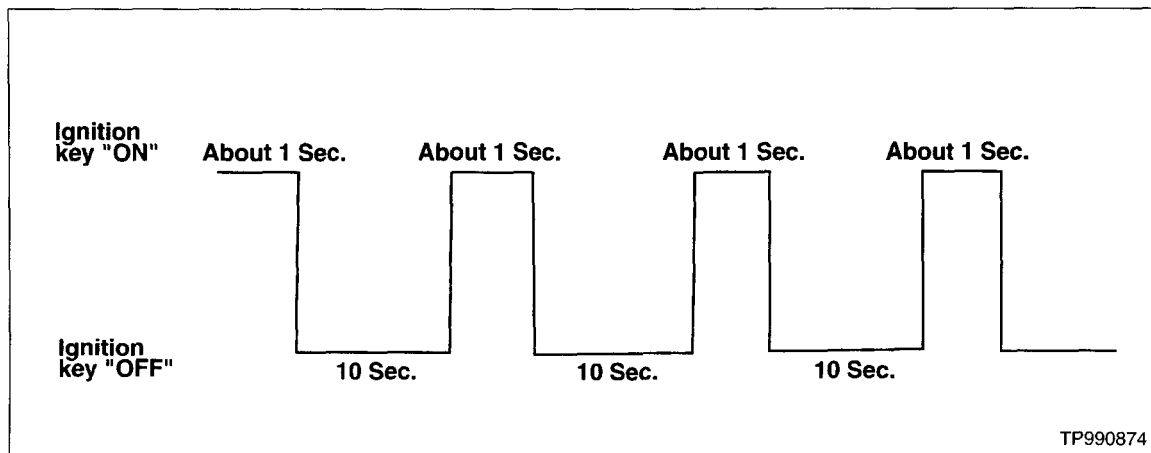


Figure 26

#### Step 4: ECM Reprogram Confirmation

41. Start the engine and confirm it is operating normally.

